भारत सरकार—रेल मंत्रालय अनुसंधान अभिकल्प और मानक संगठन

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Government of India Ministry of Railways Research, Designs & Standards Organization, LUCKNOW-226011



No. EL/3.2.19/3-Phase

Dated 08.07.2020

Principal Chief Electrical Engineer,

- 1. Central Railway, Mumbai CST-400 001.
- 2. Northern Railway, Baroda House, New Delhi-110001.
- 3. North Central Railway, Subedarganj, Allahabad- 211001
- 4. North Eastern Railway, Gorakhpur-273 001
- 5. Eastern Railway, Fairlie Place, Kolkata -700 001.
- 6. East Central Railway, Hazipur-844101.
- 7. East Coast Railway, Chandrashekharpur, Bhubaneshwar-751016.
- 8. Southern Railway, Park Town, Chennai-600 003.
- 9. South Central Railway, Secunderabad-500 371.
- 10. South Eastern Railway, Garden Reach, Kolkata -700 043.
- 11. South East Central Railway, Bilaspur-495004
- 12. Western Railway, Churchgate, Mumbai-400 020.
- 13. West Central Railway, Jabalpur-482001.
- 14. Chittaranjan Locomotive Works, Chittaranjan-713331 (WB)
- 15. Diesel Locomotive Works, Varanasi-221004
- 16. DMW, Patiyala- 147003
- 17. GM (Locomotive), BHEL Khailar Jhansi-284120

Addendum-1

Sub: Addendum-1 to Modification Sheet no. RDSO/2012/EL/MS/0412 Rev '0' dated 22.08.2012

Ref: 39th MSG decisions agenda item serial no. 10(iii) vide RDSO letter no EL/2.1.8 dated 12.02.2020

In connection with subject above, MOM issued vide reference above for 39th MSG decisions under agenda items serial number 10(iii), it had been decided that "Zonal Railways may implement modification of shifting the existing isolating cock for unloader valve for CP-1. RDSO will issue the addendum to Modification sheet no. RDSO/2012/MS/EL/ 0412, Rev '0' dated 22.08.12".

In view of above, Draft Addendum-1 to Modification sheet no. RDSO/2012/MS/EL/ 0412, Rev '0' dated 22.08.12 was issued vide letter of even no. dated 02.06.20 for comments/suggestions from Electric Loco Sheds and & PUs. Comments received from WR, SCR, CR, ELS/TATA, ELS/TKD & BHEL/JHS. CELE/WR & CELE/SCR desires that same arrangement is needed for CP2 also and material should be used of MS instead of SS with sizes of ½ inch. Hence considering most of the comments/ suggestions received from ZRs & PUs so far, Addendum-1 is being issued. Workshops, PUs and Zonal Railways are requested to take necessary action in this regard.

Problem:

As per RDSO Modification no.0412, the unloader valve isolating cocks are being provided by PUs during manufacturing. Zonal Railways has also implemented this modification in 3-phase electric locomotives equipped with E-70 & CCB brake system supplied by OEMs.

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Southern Railway reported in 39th MSG that it is very difficult to operate the CP1 ULV isolating cock in case of any failure of ULV in mid-section due to inaccessible location.

<u>Solution:</u> To overcome the above issue the CP1 and CP2 unloader valve isolating cocks may be relocated at the approachable area along the side body of the locomotive above the battery box no. 1 by providing extension pipes as shown in fig.3.

Work to be carried out:

For relocation of ULV1 & ULV2 isolating cock following work to be carried out as per sketch enclosed as Annexure-A1.

- \triangleright Connect the nipple (1 inch x ½ inch x 2 inch length) from unloader exhaust port.
- Prepare the pipe (bend & thread both end), connect one end with ½ inch isolating cock and other end with elbow union (1/2 inch x ½ inch) as shown in fig.1 & 2
- ➤ Now connect the pipe with nipple through elbow union.
- ➢ Provide suitable clamps to hold properly the arrangement.

Material required:

- ➤ Nipple (1 inch x ½ inch x 2 inch length), Qty 02 pieces
- Elbow union (1/2 inch X 1/2 inch), Qty-02 pieces
- ➤ Ball valve cut out cock size ½ inch, Qty 02 pieces.
- > Seamless MS pipe (as per ASTM schedule 80): 1400mm length approx for CP1, 600mm approx for CP2.
- Suitable clamps.
- **Note:** 1. Material such as nipples, pipes, **elbo**ws etc. are to be of MS and to be procured from CLW approved sources for conventional electric locomotive.
 - 2. The above material is required for relocation of cocks in new locos by PUs as well as in workshops during major schedules of locomotives.
 - 3. For relocation of cocks in existing locos, ELSs may use existing material & additional pipe of suitable length, and may implement the same concept (may be different layout).

(Aseem Kumar)
For Director General/Elect

Encl: As above

Copy to: Secretary (Electrical), Railway Board, Rail Bhawan, New Delhi-110001 (Kind attn.: Shri Kishore Vaibhay, DEE/RS/RB) -for kind information please.

(Aseem Kumar)
For Director General/Elect

Encl: As above

Annexure-A1 of Addendum-1 to Modification sheet No. RDSO/2012/EL/MS/0412, Rev '0' dated 22.08.12

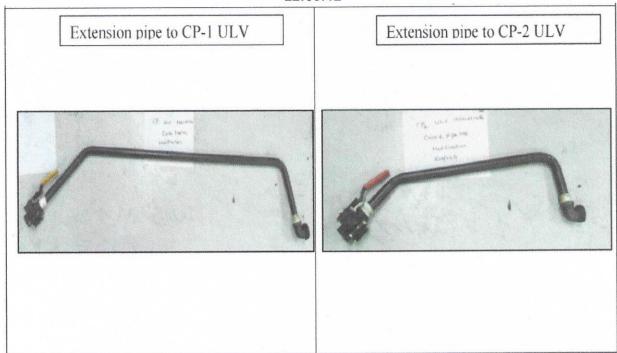


Fig. 1 MS Pipes for CP1 & CP2

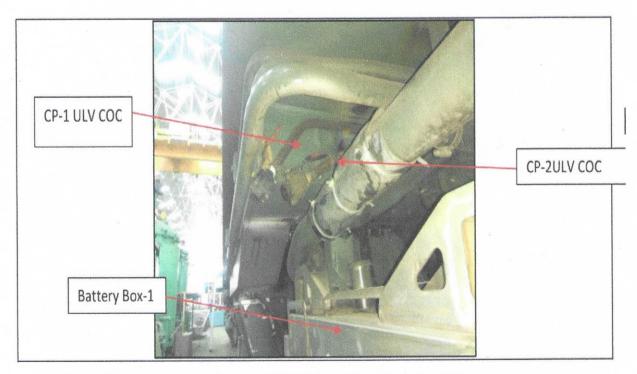


Fig. 3 Photographs for CP1 & CP2 ULV isolating cock arrangement

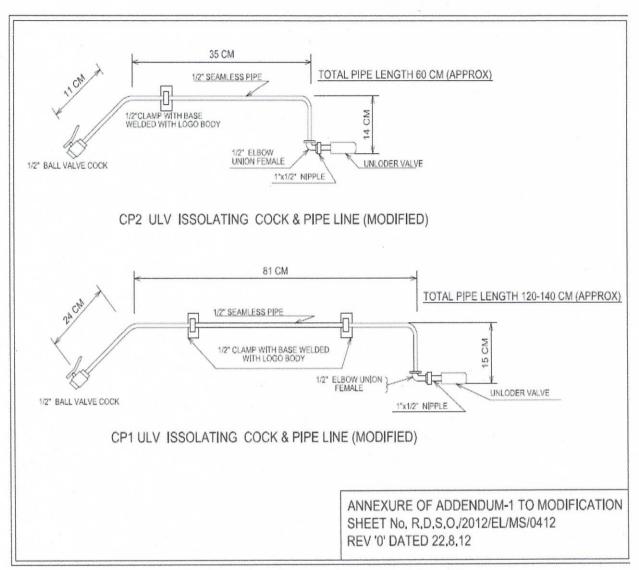


Fig.2 Dimensions & shapes of Pipes for CP1 & CP2

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